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From the page's I-index, get the offset into the data space of the row that contains the cell.

Get the cell offset from the row.

If the cell offset is not valid

There is no data for the requested cell, so return a null 5 value.

While the cell time is not the same as the requested time and there are more cells on the chain do

Go to the next cell on the cell chain.

If there are no more cells on the cell chain

There is no data for the requested cell, so return a null value.

If a corrected value was requested

Follow the cell's correction chain to the requested depth.

If the end of the correction chain is reached before the requested depth

There is no correction cell at the requested depth for this time so return a null value.

Return a pointer to the cell found.

We claim:

- 1. A method executed by a computer system as part of a computer program for retrieving data from a database, said data being stored in a plurality of data pages, 25 each of said data pages having associated therewith one of a plurality of time occurrences which specifies how often said data is monitored, each of said data pages comprising a plurality of data rows and a page index which stores pointers to each of said data rows, each of said data rows comprising a row label and a plurality of data cells, one of said data cells being linked to said row label and said other data cells being linked sequentially therefrom, a composite index table storing on what page each of said data rows is stored, said method comprising 35 the steps of:
 - (a) selecting a data row;

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(b) selecting a time interval;

(c) searching said composite index table to find on what pages said data row is stored by finding a row label associated with said data row:

(d) searching each of said pages for data cells which correspond to said data row during said time interval by traversing from said row label through said data cells which are linked together; and

(e) retrieving data from said data cells from said data row which match said time interval.

2. A method executed by a computer system as part of a computer program for storing a data in a database, said database comprising a plurality of data pages, each of said data pages having associated therewith one of a plurality of time occurrences which specifies how often said data is monitored, each of said data pages comprising a plurality of data rows and a page index table which stores pointers to each of said data rows, each of said data rows comprising a row label and a plurality of data cells, one of said data cells being linked to said row label and said other data cells being linked sequentially therefrom, said method comprising the steps of:

(a) determining a time occurrence of said data;

(b) assigning said data to one of said data pages having said time occurrence;

(c) creating a data row in said one of said data pages;

(d) creating a row label in said one of said data rows;

(e) making an entry in a page index table of said one of said data pages for pointing to said row label of said one of said data rows;

(f) creating and linking a data cell of to said row label of said one of said data rows if no other data cells is linked to said row label; and

(g) linking said data cell to another data cell in said one of said data rows if said another data cell is linked to said row label.

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